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(71) Applicants **Anthony John Sewell** 27 Verulam Ave, Walthamstow, London, E17 8ES, United Kingdom

> Joseph Fadil 27 Verulam Avenue, London, E17 8ES, United Kingdom

(72) Inventors **Anthony John Sewell** Joseph Fadil

(74) Agent and/or Address for Service **DS** Weltzel 4 Rectory Road, London, E17 3BQ, United Kingdom (51) INT CL⁵ A01M 29/00

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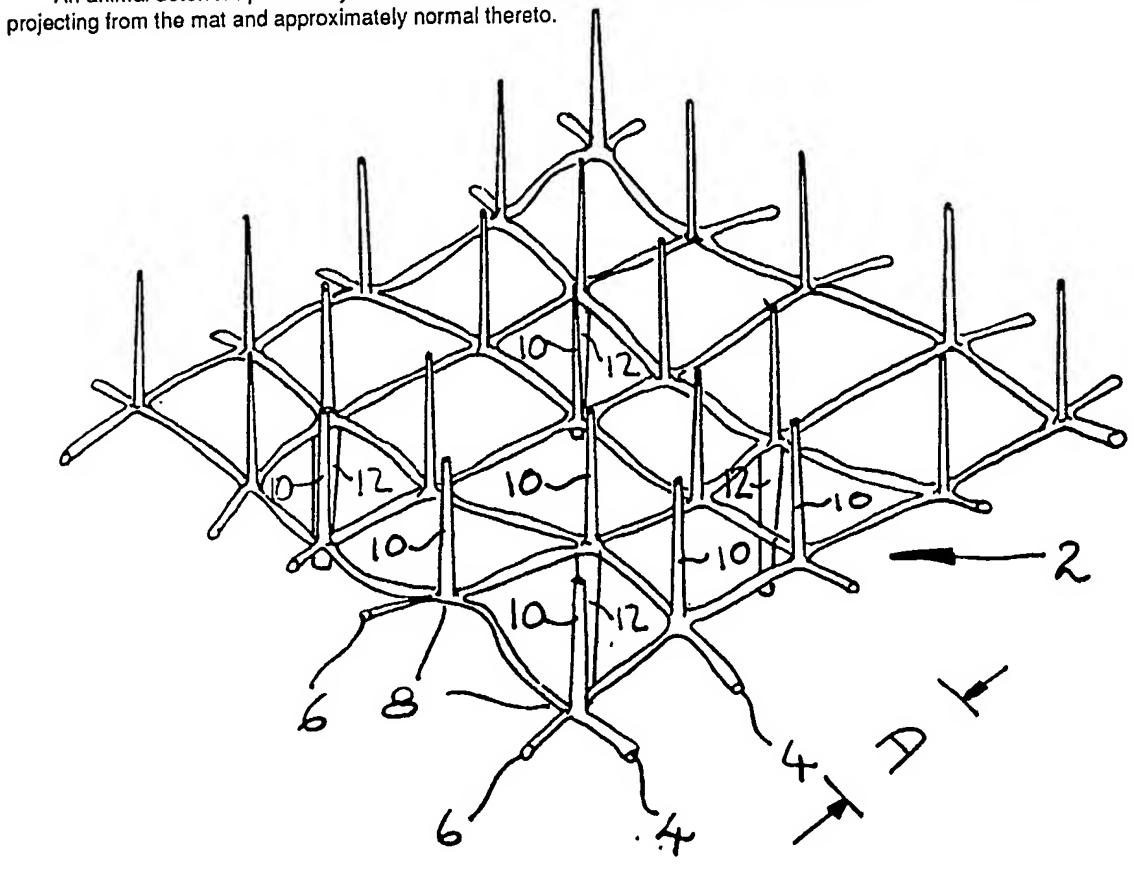
(56) Documents cited EP 0300936 A EP 0340108 A GB 2185173 A

(58) Field of search UK CL (Edition K) A1M INT CL5 A01M

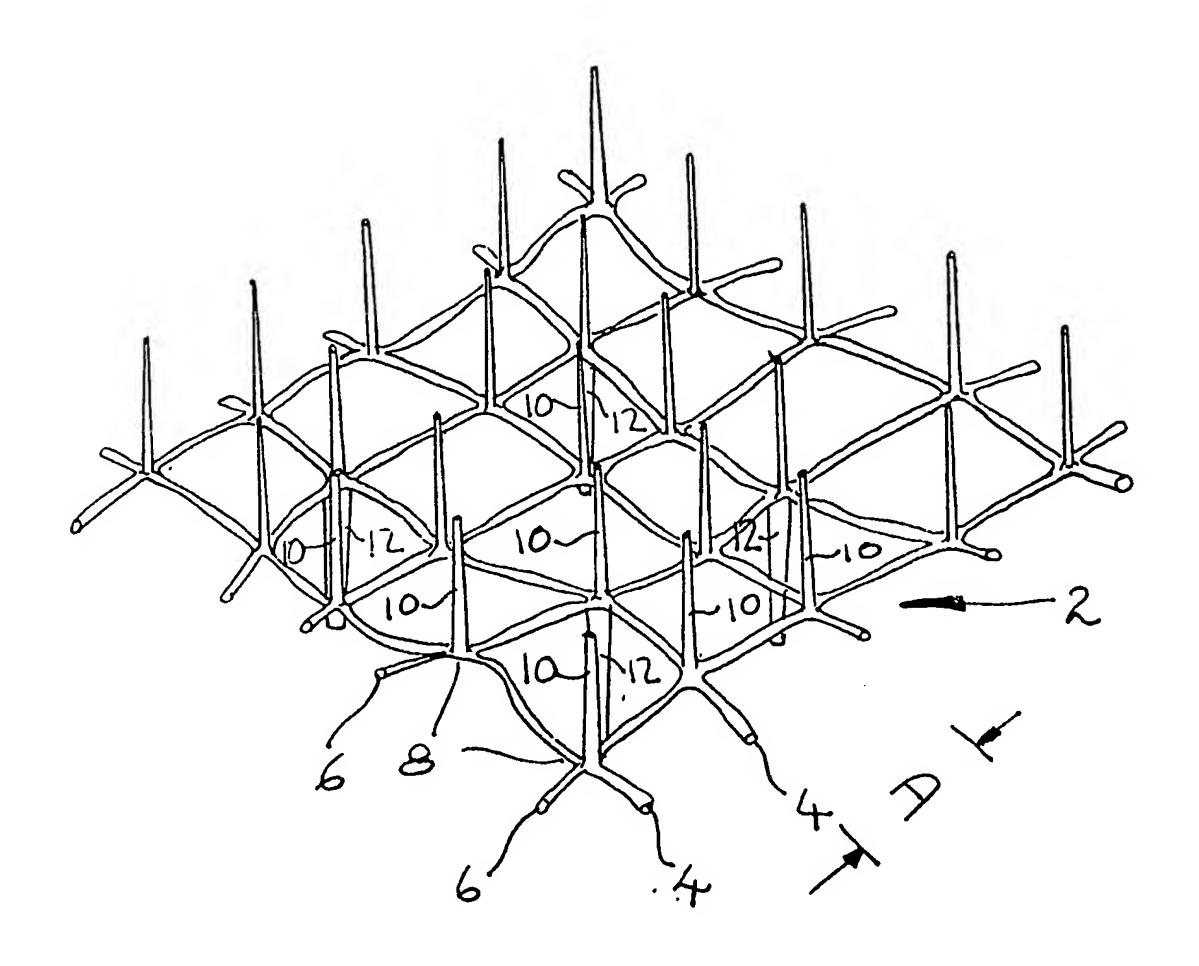
(54) Animal deterrent

(57) Current methods of deterring animals consist of the application of substances which emit an unpleasant smell and are not considered environmentally friendly.

An animal deterrent particularly for cats is disclosed, comprising an open mat having one or more flexible spikes 10



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ANIMAL DETERRENT

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This invention relates to animal deterrents, in particular cat deterrents.

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Fouling of gardens by domestic animals is a common nuisance. Cats, in particular, are difficult to train not to soil a particular area and their habit of burying their faeces often destroys or disturbs vegetable and flower beds.

10 Soft newly sown ground is preferred by the cat, to the gardener's annoyance.

Current methods of deterring animals consist of the application of substances which emit an unpleasant smell and are not considered environmentally friendly. Further, although these methods may have some effect against dogs, cats are not so sensitive or receptive to smells and the substances do not satisfactorily repel cats, although these are the chief cause of the problem.

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In accordance with the invention there is provided an animal deterrent, comprising an open mat having one or more flexible spikes projecting from the mat and approximately normal thereto.

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In practice, the spikes are, on the one hand, sufficiently flexible and, on the other hand, insufficiently sharp, to cause damage if a person or an animal were to fall on them. The spikes do, however, discourage animals from choosing that place to defecate. Because the mat is open it may be unobtrusive and plants may easily grow though it.

In a preferred form the mat is in the form of an open lattice or grid. In this case, the lattice or grid preferably comprises a first plurality of spaced elongate members which intersect a second plurality of spaced elongate members, wherein the elongate members undulate

irregularly and are not parallel to each other within either the first or the second plurality. The irregular nature of the lattice or grid is intended to increase the unobtrusiveness of the deterrent.

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Conveniently, the spikes project from the interstices of the elongate members.

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In a much preferred form, the mat includes spikes on both sides. The spikes on the lower side may be pushed into the ground to locate the mat so as to prevent it from blowing around, and to prevent a cat from scratching it out of the way.

It may not be necessary for there to be as many spikes to press into the ground as there are spikes on the top of the mat.

The grid or lattice may have any convenient dimensions.

In a preferred form the interstices occur at spacings of from 1 cm to 4 cm along an elongate member. More preferably, the interstices occur at spacings of from 1.5 cm to 2.5 cm along an elongate member.

Again, the spikes may have any convenient dimensions but in a preferred form the spikes project from 1 to 3 cm from at least one side of the mat.

The deterrent is preferably formed integrally of plastics and is preferably brown.

One embodiment of the invention will now be described, by way of example, with reference to the accompanying drawing which is a pictorial view of an animal deterrent embodying the invention.

Referring to the drawing. the deterrent comprises a

flexible plastic mat 2 in the form of an open grid or lattice. In the grid or lattice, a group of irregularly undulating elongate members 4, intersect another group of irregularly undulating elongate members 6 at interstices 8.

At each interstice the mat is formed with an integral spike 10 projecting approximately normal to the grid or lattice.

In other embodiments (not illustrated) the mat may, less preferably, be formed of a regular lattice or may be in the form of a sheet with holes therethrough.

The spikes 10 are sufficiently sharp and long to be uncomfortable for an animal especially a cat in the act of defecation. As an example the length of the illustrated spikes is about 2 cm. Spikes having a height in the range 1 to 3 cm are preferred. To cause discomfort, the spikes are spaced along the elongate members. at the interstices, a distance which varies due to the irregularity, but is approximately from 1.5 to 2.5 cm. A range of from 1 to 4 cm is preferred.

The spikes, which project approximately normal to the grid or lattice, are sufficiently flexible and are insufficiently sharp to cause injury to an animal or person who may inadvertently walk or fall on them. For example, manufactured in low density polythene spikes which are 2 cm long, and about 2 mm in diameter, tapering slightly towards the top, are found satisfactory.

A lesser number of interstices is formed with downwardly oriented spikes 12, four are illustrated against 25 upwardly oriented spikes 10. In larger mats, not illustrated there may be one downwardly oriented spike 12 for, say, each nine upwardly oriented spikes. In use the downwardly oriented spikes are pressed into the ground so as to locate the mat preventing it from being blown around or scratched out of the way by, say, a cat.

The irregularly undulating elongate members 4 and 6 are not parallel and reduce the visual intrusiveness of the mat which is also brown for that purpose.

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Although the mat illustrated is a discrete square, in other embodiments the mat may be provided as a roll from which a length is cut to suit.

CLAIMS

- An animal deterrent, comprising an open mat having one or more flexible spikes projecting from the mat and
 approximately normal thereto.
 - 2. A deterrent as claimed in claim 1, wherein the mat is in the form of an open lattice or grid.
- 3. A deterrent as claimed in claim 2, wherein the lattice or grid comprises a first plurality of spaced elongate members which intersect a second plurality of spaced elongate members, wherein the elongate members undulate irregularly and are not parallel to each other within either the first or the second plurality.
 - 4. A deterrent as claimed in claim 3, wherein the spikes project from the interstices of the elongate members.
- 5. A deterrent as claimed in any preceding claim, including spikes on both sides.
- 6. A deterrent as claimed in claim 4 or 5 when appendant to claim 4, wherein the interstices occur at spacings of from 1 cm to 4 cm along an elongate member.

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- 7. A deterrent as claimed in claim 6, wherein the interstices occur at spacings of from 1.5 cm to 2.5 cm along an elongate member.
- 8. A deterrent as claimed in any preceding claim in which the spikes project from 1 to 3 cm from at least one side of the mat.
- 9. A deterrent as claimed in claim 5 when appendant to claim 4, wherein spikes on one side of the mat project from substantially all of the interstices, and wherein spikes on

the other side of the mat project from only some of the interstices.

- 10. A deterrent as claimed in claim, wherein on the said other side of the mat spikes project from only about 1 in 9 of the interstices.
 - 11. A deterrent as claimed in any preceding claim, formed integrally of plastics material.

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12. A deterrent as claimed in any preceding claim, which is brown.

Patents Act 1977 Examiner's report to the Comptroller under Section 17 (The Search Report)

Application number

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(i) UK CI (Edition K) Alm (HDC, MFF)	
(ii) Int CI (Edition ⁵) AO1M	K J KENNETT
Databases (see over) (i) UK Patent Office	Date of Search
(ii)	31 DECEMBER 1991

Documents considered relevant following a search in respect of claims

1-12

Category (see over)	Identity of document and relevant passages		Relevant to claim(s)	
X	GB 2185173 whole docume		1	
X	EP 0340108 figure 2	(TMC)	1	
X	figure 3	(BAUDOIN)	1 and 11	

ategory	Identity of document and relevant passages	Relevant to claim(s)
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Categories of documents

- X: Document indicating lack of novelty or of inventive step.
- Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.
- A: Document indicating technological background and/or state of the art.
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